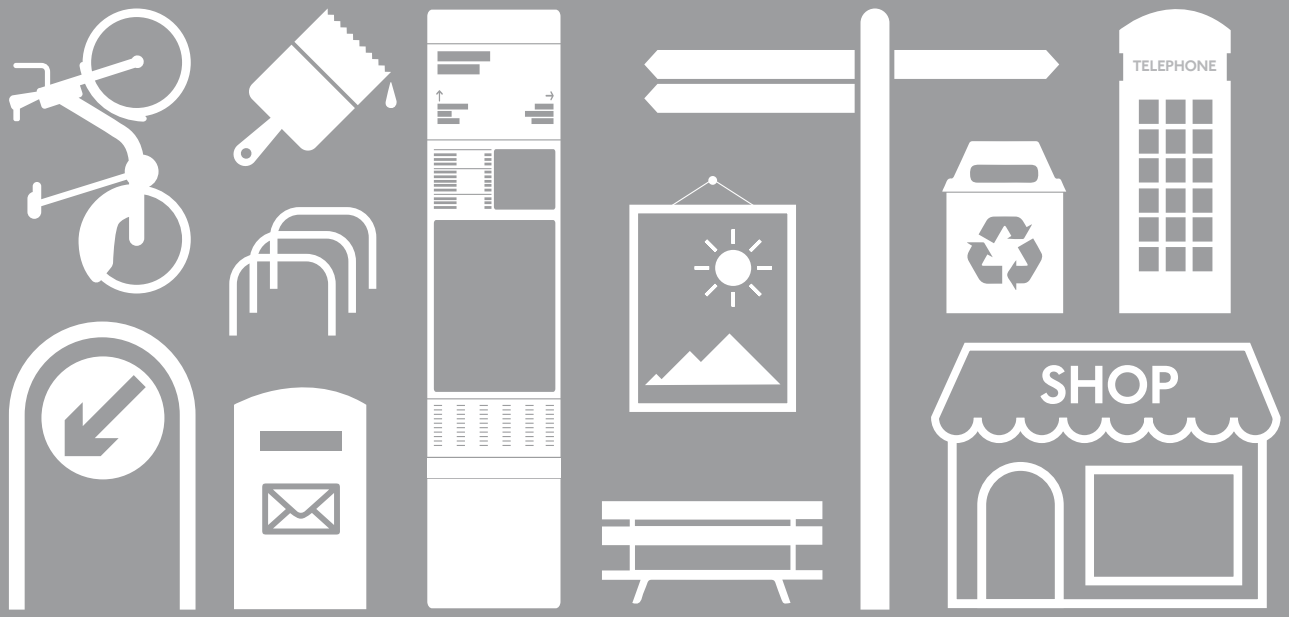
Part E Footway amenities



11.1 Vision

The immediate impression and character of any modern city is often determined by the quality and aesthetic appeal of its street furniture design. This can help to animate the public realm and signals to users what and where certain behaviour is desirable and appropriate. A specific location can often be recognised by simply referring to its street furniture design. However, poorly placed or excessive street furniture can create a cluttered environment resulting in obstructions, reduced legibility and a blighted character. Successful public spaces have had every piece of street furniture rationalised and creatively placed to achieve multiple aims.

There is no 'one solution fits all' when selecting and applying street furniture. Material selection and layout must be contextually appropriate. Some settings may require street furniture that quietly complements the character of the area, provides structure, or adds surprise and delight.

We value exceptional detailing to ensure that street furniture is beautiful, robust and maintainable, complementing the surrounding streetscape with 'the right product in the right place, done right'.

General principles

The term 'street furniture' applies to any vertical piece of equipment placed within the highway, to provide a practical function. Most components are located on the footway and provide functions relating to traffic management, safety and amenity. Products include signposts, signals and enforcement equipment to inform motorists, as well as pedestrian oriented elements such as seating, wayfinding signage and kiosks.

The palette of materials selected for the TLRN reflects our ambition to provide a consistent high quality streetscape. The street furniture components shown in this section emphasise design intent rather than prescribing specific products. Dimensional requirements are mandatory and have been specified based on advice from best practice.

Design teams should check specifications with manufacturers and select products that satisfy the criteria. Options are given where there may be an opportunity to reflect local character be it stylish and contemporary or historic. Design teams may recommend alternatives to the standard palette that are in keeping with the spirit of this guidance. Alternative street furniture will require SDRG approval for any TLRN route.

Figure 200: A street furniture zone of cycle parking and trees located at the back of the footway

Figure 201: A street furniture zone located at the front of the footway

Coordinating street furniture

Streetscape Guidance advocates using a coordinated approach for designing and maintaining the layout of street furniture to:

- Minimise cluttering footways with unnecessary furniture
- Maximise unobstructed widths for comfortable pedestrian movement
- Satisfy network operational requirements
- Ensure that the product is appropriate for the location in function and style
- Merge or combine street furniture components on a single post where practicable to further reduce clutter

In identifying locations for street furniture within the footway, a number of related factors should be considered which will impact on appropriate placement. These factors determine how to integrate street furniture.

Designers should consider:

- **Footway and verge widths** – location, orientation and quantity
- **Vehicle speeds** – speed limits will govern minimum set backs from the kerb line
- **Pedestrian flows** – refer to Pedestrian Comfort Guidance for London (2015) to determine these
- **Parking and loading requirements** – street furniture should not be located where it is at risk of damage from vehicle movement or where access to the street furniture poses a safety risk to pedestrians except where street furniture has been placed to discourage vehicle movement
- **Street Types** – the material and layout of furniture should contribute to the function, performance and character of the street
- **Adjacent land uses** – furniture should satisfy a need as well as reflect the character of the setting without causing an obstruction or reducing the functionality of the surrounding buildings or land uses
- **Street furniture size and location requirements** – individual components should satisfy designated criteria to ensure a minimum standard is attained
- **Security** – furniture must not create a situation which compromises the safety or security of any user
- **Maintenance** – street furniture placement does not restrict standard cleansing regimes

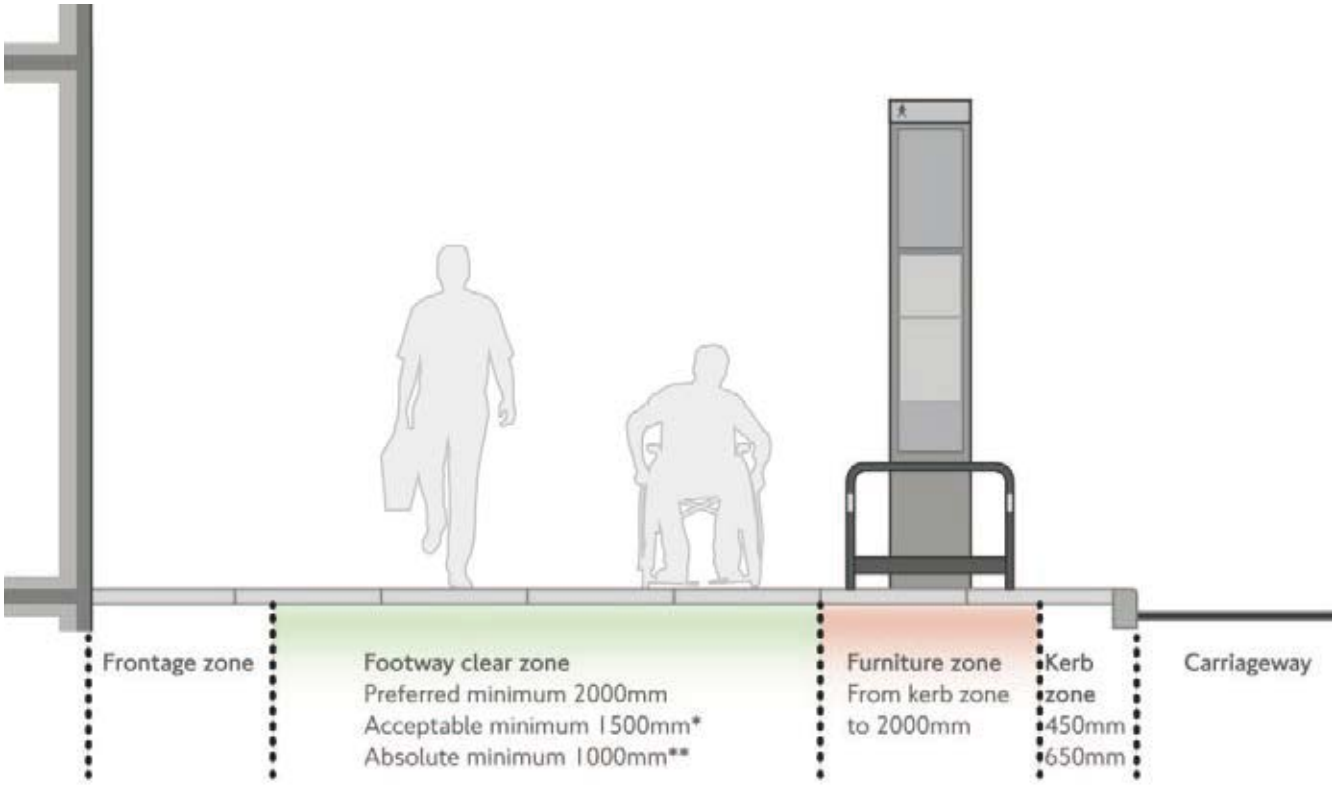
11.2 Footway zones

The area between the kerb line and the highway boundary can be divided into four zones, which serve distinct functions within the streetscape:

- Kerb zone
- Furniture and planting zone
- Footway clear zone
- Frontage zone

The relative importance, scale and treatment for each of the zones will vary according to the context.

Figure 202: Footway zones



* When two metres is not possible due to physical constraints.
** Where there is an obstacle. Maximum length of restricted width is 6metres.

Kerb zone

A kerb zone should be kept completely free of street furniture to prevent damage from vehicles overhanging the carriageway edge. Each piece of street furniture and equipment has a minimum distance it must be placed away from the kerb edge. Please refer to each streetscape element to determine the specified distance from kerb edge.

It is essential to consider the camber of the road to allow for high-sided vehicles leaning over the footway.

Figure 203: Street furniture and bus stops aligned towards the front of the footway in Barking

Furniture and planting zone

The furniture zone is provided adjacent to the kerb zone to coordinate street furniture in a consistent arrangement which maximises the unobstructed width of the footway for pedestrian use. Features such as lighting and signage should be located in this zone, along with on-footway cycle parking, seating and other amenity elements.

Furniture should only be provided where it serves a specific function and is appropriate for the location. A furniture zone should therefore not exist where there is no need for street furniture.

Design teams should acknowledge that the requirements for the footway clear zone will ultimately determine how much space can be afforded to street furniture.

A furniture zone should only be provided where suitable clear footway widths and kerb zone widths are deliverable. The width of the furniture zone should be selected based on the footway constraints, which in turn will impact on the street furniture that can be used:

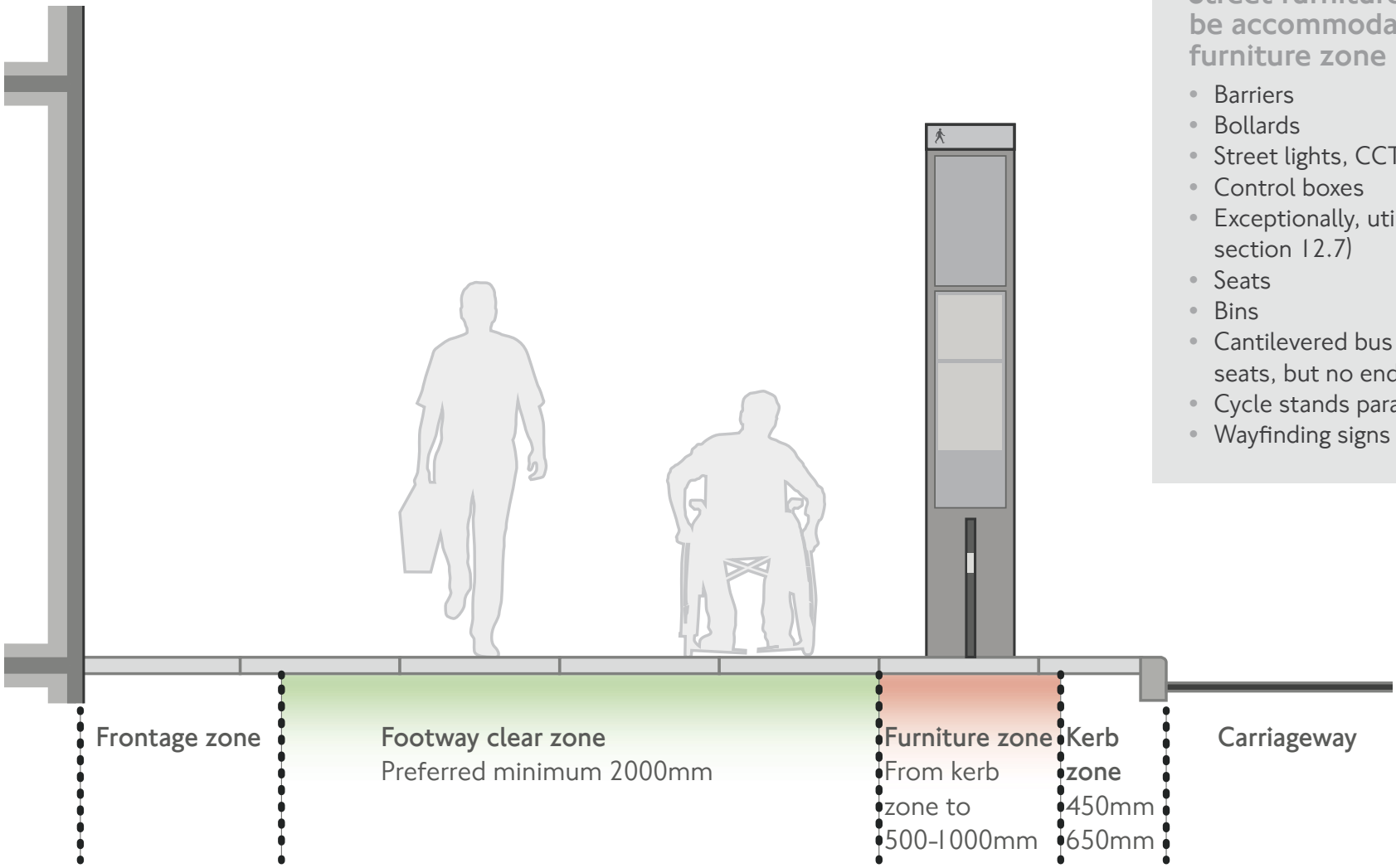
Furniture zone design standards

Furniture zone width

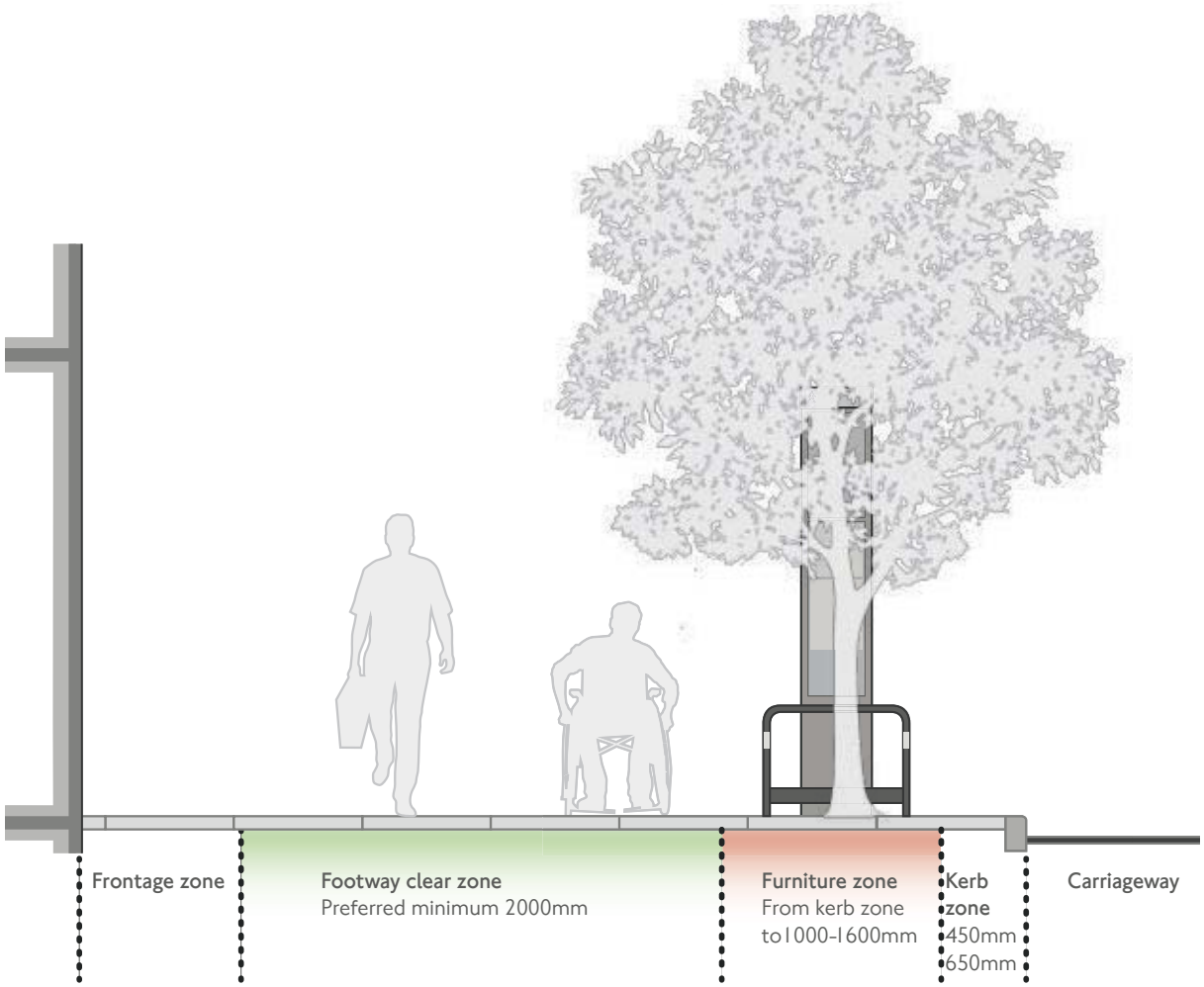
500-1,000mm wide

Street furniture that can be accommodated in the furniture zone

- Barriers
- Bollards
- Street lights, CCTV, traffic signals, signs
- Control boxes
- Exceptionally, utility cabinets (see section 12.7)
- Seats
- Bins
- Cantilevered bus shelters with perch seats, but no end panels
- Cycle stands parallel to the kerb
- Wayfinding signs



Furniture zone design standards



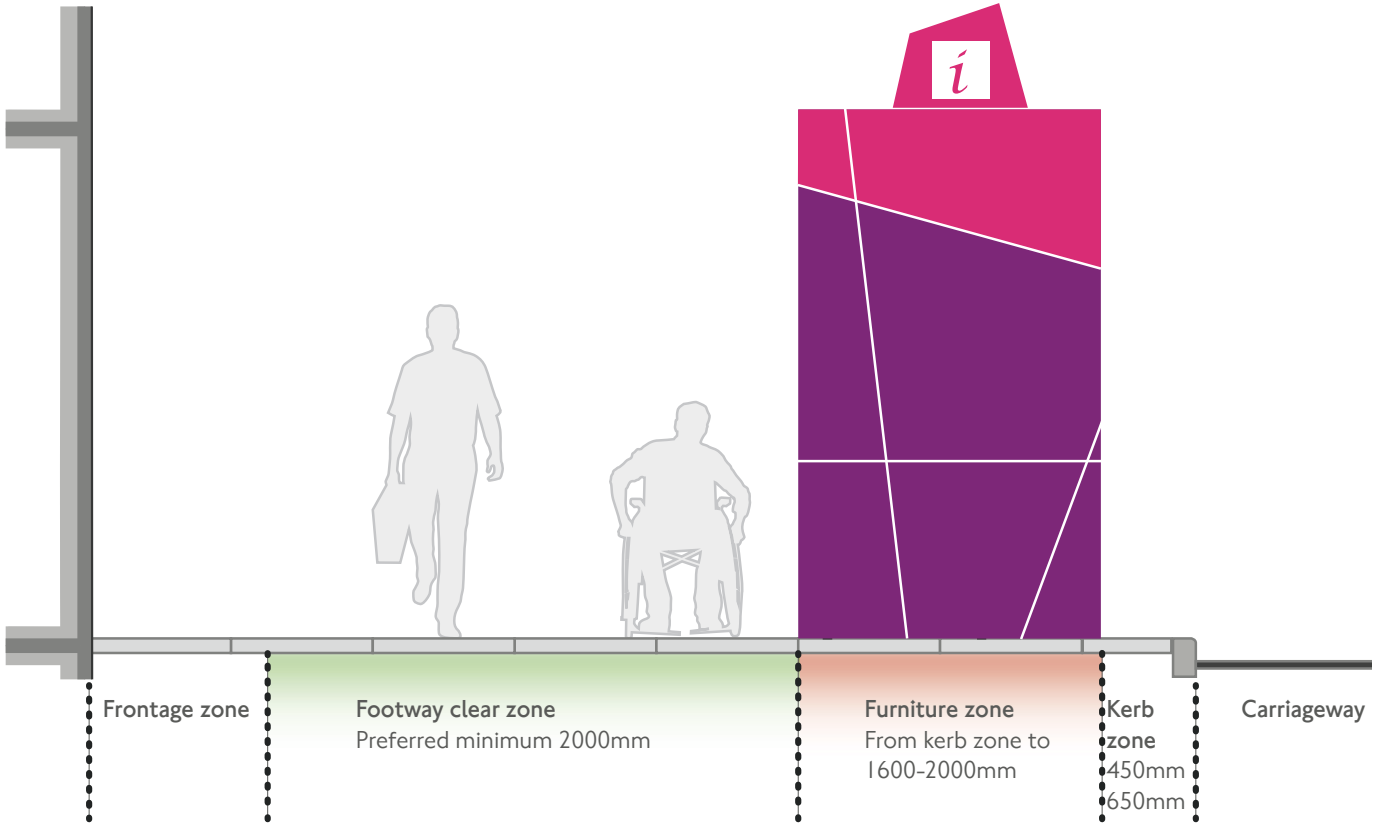
Furniture zone width

1,000-1,600mm wide

Street furniture that can be accommodated in the furniture zone

- Barriers
- Bollards
- Street lights, CCTV, traffic signals, signs
- Control boxes
- Exceptionally, utility cabinets (see section 12.7)
- Seats
- Bins
- Cantilevered bus shelters with perch seats, but no end panels
- Cycle stands parallel to the kerb
- Wayfinding signs
- Telephone boxes and other larger items
- Cycle stands angled at greater than 45 degrees to the kerb line (echelon cycle parking)
- Street trees

Furniture zone design standards



Furniture zone width

1,600-2,000mm wide

Street furniture that can be accommodated in the furniture zone

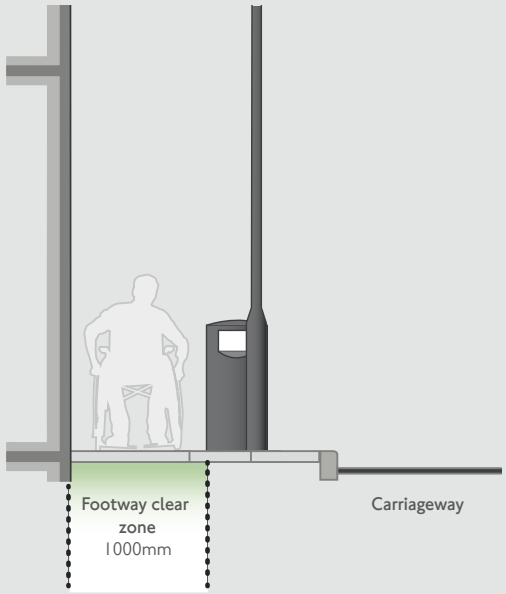
- Barriers
- Bollards
- Street lights, CCTV, traffic signals, signs
- Control boxes
- Exceptionally, utility cabinets (see section 12.7)
- Seats
- Bins
- Cantilevered bus shelters with perch seats, but no end panels
- Cycle stands parallel to the kerb
- Wayfinding signs
- Telephone boxes and other larger items
- Cycle stands angled at greater than 45 degrees to the kerb line (echelon cycle parking)
- Street trees
- Cycle stands can be provided at 90 degrees to the kerb line, although echelon parking remains the preference
- Kiosks and other large structures
- Bus shelters with half and full end panels
- Larger street trees

Footway clear zone

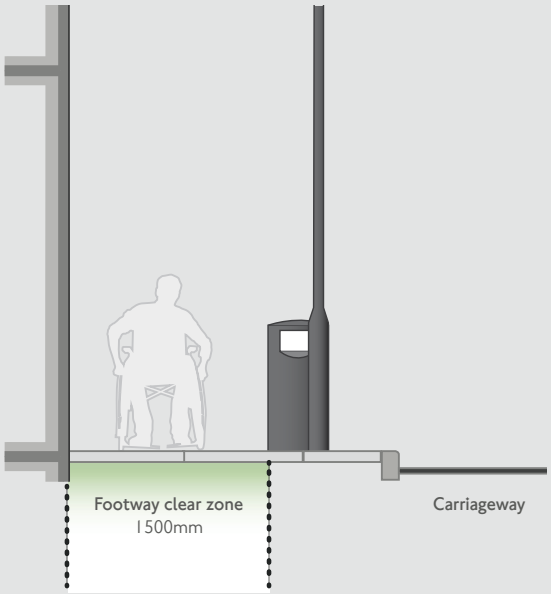
The clear zone should be entirely free of obstructions to allow for unhindered pedestrian movement along the footway. The width of the clear zone provided should relate directly to the character and use of the street, and in particular the volume of pedestrians. The footway clear zone should be designed to comfortably accommodate peak pedestrian demand and satisfy acceptable levels of service (refer to DfT's Inclusive mobility, 2005, and to our Pedestrian Comfort Guidance for London, 2010, for further information).

Footway clear zone design standards

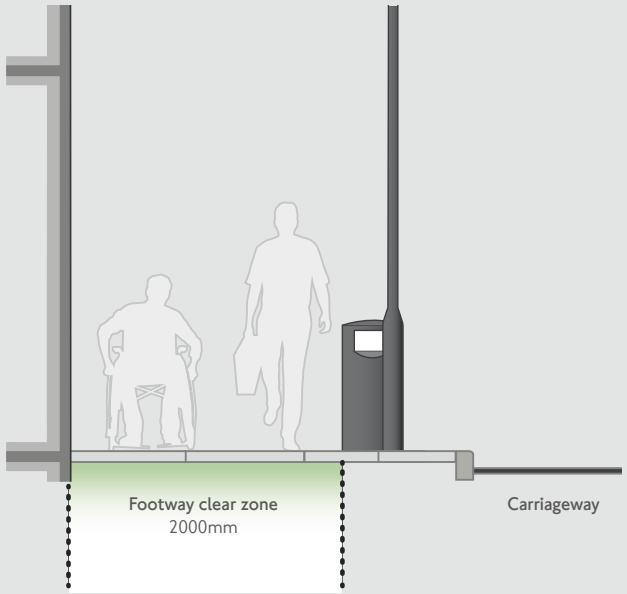
Unobstructed width	Design criteria
1,000mm wide	• Absolute minimum unobstructed width • Where a minimum width is provided, it should not be continued for more than 6,000mm along the length of footway



Unobstructed width	Design criteria
1,500mm wide	• Minimum acceptable unobstructed width. Allows for a wheelchair user and person walking to pass one another



Unobstructed width	Design criteria
2,000mm wide	• Preferred minimum unobstructed width. Allows for two wheelchair users to comfortably pass one another



Frontage zone

The frontage zone is the area adjacent to the property line and highway boundary. Wherever possible this zone should be kept free of street furniture to:

- Enable visually impaired people who use canes to navigate the street using the building line
- Minimise obstructing retail frontages to encourage window browsing

Where footway widths are narrow, essential street furniture may be located tight against the property boundary to minimise street clutter within the kerb zone. The maximum recommended distance is 275mm away from the building line for positioning street furniture within the frontage zone. Building overhangs, shop signs, awnings, banners, planters, and drain pipes may encroach upon this zone and require statutory approval from the highway authority.

Approval for extension beyond the frontage zone into the footway zone must only occur where minimum clear headroom of 2,400mm is maintained. A 2,100mm clearance below suspended signs is allowed where cyclists are not permitted on the footway.

In certain areas, the frontage zone may be occupied by café seating. In these instances it is important to ensure that clear boundaries are defined so that café furniture does not obstruct the footway clear zone.

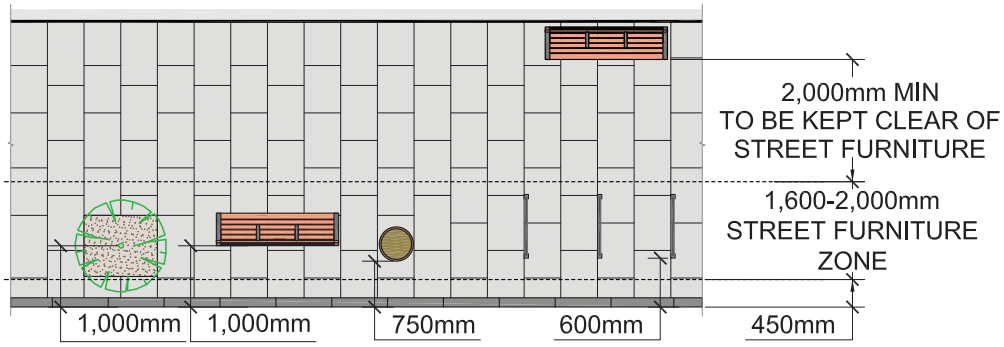
Alternative solutions

If the existing situation and/or the scope of the project makes it difficult to create a furniture zone, larger furniture objects will be difficult to incorporate within the streetscape.

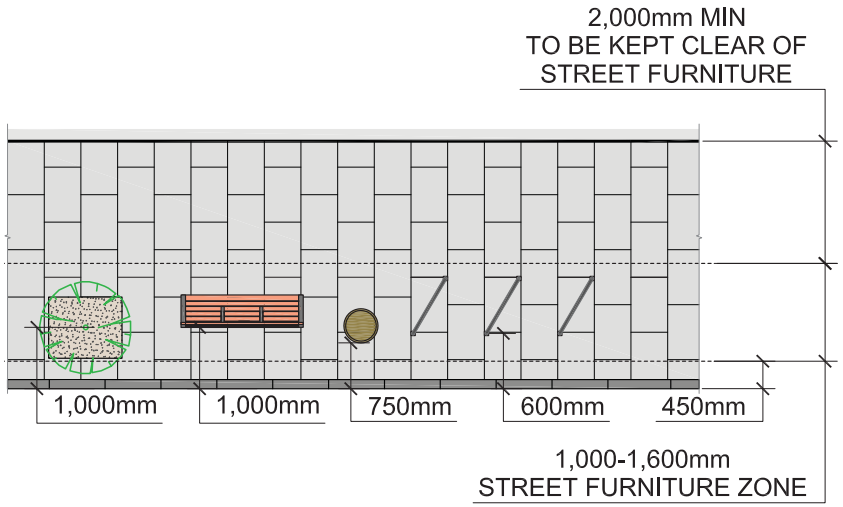
Alternative solutions may be to:

- Locate street furniture on side roads, with due consideration for operational requirements
- Locate service boxes, signal controllers or telephone kiosks in building recesses
- Integrate post boxes and cabinets, where practical, into the building structure with appropriate access (wayleaves required)
- Negotiate with adjacent landowners the location of street furniture beyond the highway boundary
- Consider locating specific furniture on the central median or carriageway, such as cycle parking

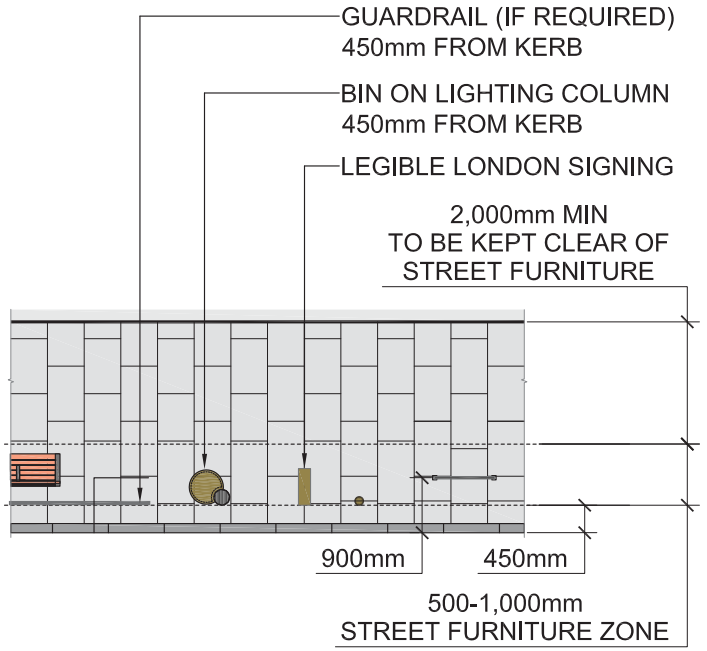
Figure 204: Street furniture placement



PLAN - FURNITURE ZONE 1,600-2,000mm



PLAN - FURNITURE ZONE 1,000-1,600mm



PLAN - FURNITURE ZONE 500-1,000mm

11.3 Working with businesses

Many controllable on-street activities contribute directly to the economic viability of the local community, the vibrancy of the place and/or the safety of the surrounding structures. London's road network provides, in select locations, the opportunity for a variety of services to be offered to Londoners in the form of a kiosk, market stalls and pavement cafés. Business opportunities are provided in a range of forms from retail opportunities to providing information, exhibitions, or public engagement.

Figure 205: A local market on the carriageway

Like all elements of the streetscape businesses must sit comfortably within their environment, be well designed and provide a benefit to Londoners. The following section presents standards for the siting, design and maintenance of kiosks, market stalls, pop-ups and pavement cafés in their various forms to create flourishing and welcoming spaces. Many of the activities listed are controllable by the issue of consents or licences issued by the highway or local authority. When working on the TLRN, in most cases TfL's consent should be sought.

Kiosks and pop-ups

Retail kiosks and pop-ups are owned and managed by companies to assist in the sale and distribution of their products or to provide information and are most often located at stations or transport interchanges. These areas are the busiest and most congested parts of London so footway space is especially valuable for ensuring adequate pedestrian comfort. Newspaper stands should therefore be carefully managed to reduce their visual and physical intrusion within the street environment

Newspaper kiosks

Permanent and temporary kiosks which are operated by local traders can have a positive impact on the street environment if they are well managed and do not spill out across the footway. Kiosks should be provided so as to minimise the visual intrusion within the streetscape and allow adequate space for pedestrians on the footway.

Designers should consider the impact that pedestrians gathering around a stall can have on footway capacity and should ensure that any existing kiosk is not overly impacting on the quality and comfort of the walking environment.

Kiosks should be removed where situated in a position that adversely impacts on the quality of the streetscape, or where poorly managed and maintained by the leaseholder.

Figure 206: A permanent newsagent kiosk located towards the front of a wide footway

Design

Designers are encouraged to work with the newspaper companies to use a limited colour palette for stands placed on the road network to reduce their visual intrusion. The design of newspaper kiosks should reflect the local context in materiality, colour and form. The preference is to provide temporary facilities that are removable. Designers should consider using metal studs to demarcate agreed locations for newspaper stands and to aid enforcement.

Enforcement

Greater enforcement of newspaper kiosks is required to minimise the encroachment of stands on to the footway. As a general principle, a newspaper kiosk is not acceptable where it impacts on sightlines at corners or crossing places, nor where it impacts on the free flow of pedestrian traffic.

Location

- Stands should be located in an agreed location upon consultation with London Underground, the borough and the relevant newspaper companies
- Newspaper stands are typically located against a building wall in close proximity to a station entrance, and should be placed to minimise obstructing pedestrian desire lines
- They may be positioned temporarily during peak periods and removed when all papers have been sold, or larger units can be a permanent fixture in the streetscape
- Newspaper stands should not back on to guardrails as it increases the visibility and visual intrusion of the stand, with fixings visible from all sides
- Where multiple newspaper stands are located in close proximity, the stands should be located directly next to each other to minimise the footprint size

Licensing

The borough's licensing requirements must be met for street trading. On any section of the TLRN our approval is required unless evidence exists that the local authority had passed a 'designating resolution' for the street (or part of the street) in question prior to July 2000, under section 24(1)(a) of the London Local Authorities Act 1990, or under such equivalent provisions repealed by the 1990 Act. In those circumstances designation would be continued by section 24(2) of the 1990 Act without further express designation. Any such designations will have been made by formal resolution of the local authority. No presumption of designation can be made without the support of appropriate contemporaneous records. When considering new designations then the general principles of this guidance relating to safe passage around licensed areas will apply, as will the requirement to remove receptacles and other equipment from the highway at the end of each trading session and not to retain it on the highway overnight.

Pop-up kiosks

Pop-up kiosks provide a temporary service. Examples include retail, information, exhibitions and public engagement. They were used extensively during the 2012 Games.

As with permanent kiosks, pop-ups must not have an excessive impact on the quality and comfort of the walking environment. Given their association with large-scale events, the requirement for an unobstructed pedestrian environment may be even more acute.

Figure 207: Temporary or pop-up kiosks offer short-term services

Design

The main design characteristic of pop-up kiosks is that they are flexible. They will also need to be distinctive, attractive and appropriate to their context. They are typically single-storey and need to be quick to assemble/disassemble, while maintaining a high-quality appearance throughout the duration of their use.

Location

The location of pop-up kiosks will vary depending on their function and associated events. The procuring authority should follow the guidelines for permanent kiosks as far as is necessary to ensure a functioning streetscape.

Licensing

Consent should be sought from the local authority and ourselves.

Market stalls

Design considerations

Market pitches may be delineated and numbered using paint, paving materials, or studs depending on the context. Market stalls may be owned by individual traders, supplied by the local authority or by stall contractors. Market stalls must not cause interference or inconvenience to street users.

Licensing

Market stalls are usually licensed by the relevant local authority which grants a street trading licence, however, our consent is also required when working on the TLRN. The local authority can also grant licences for various street activities or street trading to control the type and scale of activity.

Dealing with waste

Market traders are responsible for keeping their stall and surrounding area clean and free of litter and rubbish during hours of trading. Traders are also responsible for removing and disposing of their rubbish.

Despite these requirements, litter and waste often blight market stalls. Local authorities and market stalls should aim to reduce the total space taken by waste. Waste should be managed and kept out of sight until ready for collection, as well as limiting the amount of waste produced by market activities.

Figure 208: A woman shopping at a market stall

Wastewater is also an important consideration. Drains in market stall areas are susceptible to blockages from wastewater, fat and refuse. Provision of foul water sewers (not gutter gullies) helps to prevent this.

Pavement cafés

Pavement cafés and outside dining can provide a sociable and attractive addition to the streetscene when located appropriately and successfully managed. Pavement cafés will be promoted where space allows and where it will animate and add character to the street. Wider pavements make this more achievable.

Figure 209: Pavement cafés may be located on wide footways

Design considerations

Pedestrian movement must be taken into consideration when pavement café applications are received, ensuring that acceptable footway widths are maintained. Clearance for access to adjacent properties and for emergencies must also be maintained. The footway adjacent to the pavement café should provide a minimum unobstructed width of 2000mm.

Materials and layout

- Areas can be demarcated by a variety of means; the most common and visually acceptable is through the use of metal studs
- Metal studs can be retrofitted to most paving surfaces by drilling and secured with a high strength adhesive
- Stainless steel studs in chrome or bronze should be bevelled and not exceed six millimetres in height, so as to avoid posing a potential trip hazard when no seats are laid out
- Temporary barriers to cordon off the seating should have a plain style and be within the height range of 700-1,000mm, so as to not visually obstruct views down the street or pose a trip hazard
- Awnings should be free of advertisements and should not exceed the width of the designated seating area
- Planters may be used where adequate drainage can be provided and upon agreement with the SDRG, as these constitute permanent structures
- Outdoor furniture or appliances are not permitted to be stored on the road network

Licensing

- Pavement cafés are usually licensed by the relevant local authority which grants a Highways Act S115E licence in accordance with set criteria for the purposes of providing refreshments. Licensed areas on the TLRN must have our prior consent to be valid
- Local policies provide the management principles for licensing and managing commercial activities on or adjacent to the highway
- Seated areas that are located on private forecourts or to the rear of buildings and in private courtyards do not generally require a licence if they are an extension of an A3 or A4 commercial use; however planning permission will be required for any permanent structure
- It is the local authority's duty to ensure that access along the footway and to the seating area is compliant with standards outlined in the Equality Act 2010
- The local authority can also grant licences for various street activities or street trading to control the type and scale of activity

Additional information

Department for Transport:

Inclusive mobility – A guide to best practice on access to pedestrian and transport infrastructure, 2002

Highways Act:

Guidance on the application of powers under Section 115, Highways Act 1980

Advertising boards

An objective of the MTS is to make it easier for cyclists, pedestrians and disabled people to get about. In support of that objective, we have removed miles of unnecessary pedestrian guardrail and thousands of unnecessary traffic signs and bollards.

Figure 210: This advertising board is obstructing the footway and should be removed

We have also set a priority for the removal of unauthorised obstructions from our roads as such items can cause inconvenience to pedestrians, present a hazard – particularly for people with poor eyesight – and make the street feel unnecessarily cluttered.

We will serve removal notices and issue a fixed penalty notice to businesses that obstruct the public footway with advertising 'A' boards. 'A' boards constitute any type of free-standing advertisement, directional or information signage placed within the highway.

TfL policy

- Planning authorities are responsible for regulating and approving advertising in the public highway as detailed in the Town and Country Planning (Control of Advertisements) (England) Regulations 2007

Figure 211: Advertising boards correctly placed on Station Road in Harrow

- 'A' boards placed without permission within the highway authority's jurisdiction should be removed. Authorities are able to issue fixed penalty notices for unauthorised obstruction of the highway
- Boards positioned on private forecourts do not require planning permission, however, local authorities are encouraged to engage with shopfront owners to adopt a regime of minimum clutter and conform to the design standards outlined below

Unacceptable placement

The following placements are unacceptable, regardless of property ownership considerations:

- Where the board constitutes a hazard as identified by the local authority or ourselves
- Where any form of vehicular access is required
- 'A' boards fixed to street furniture, trees or the public highway
- Boards leaning against walls
- Partial placement on the public highway and private forecourt
- Boards on grass verges; these can create a road safety hazard

Ownership of subsoil does not necessarily negate an area being public highway. Highway authorities should ensure that any 'A' boards on the highway are removed and have powers to do so, provided by the London Local Authorities and Transport for London Act 2003.

Additional information

Department for Communities and Local Government:

Outdoor advertisements and signs: a guide for advertisers, 2007

Legislation:

Highways Act 1980, Section 132

Town and Country Planning Act 1990

Town and Country Planning (Control of Advertisements) (England) Regulations 2007

London Local Authorities and Transport for London Act 2003

11.4 Colour of street furniture

The colour of metal components for any piece of street furniture should comply with the following colour criteria:

- Black street furniture is preferred as a default for the TLRN with the exception of higher speed routes that do not provide for pedestrian movement
- Signal grey is the standard colour for higher speed non-pedestrian roads
- A stainless steel finish should be considered as non-standard and requires SDRG approval
- Contrasting band

Colour of metal street furniture	Application	Finish	Contrasting visibility band
RAL 9005 Black	TLRN in most boroughs, town centres and low speed roads	Matt micaceous iron oxide	Signal grey (RAL7004)
RAL 7004 Signal grey	High speed non-pedestrian roads and by exception as approved by the SDRG	Matt micaceous iron oxide	Black (RAL9005)
Stainless steel	By exception as approved by the SDRG	Stainless steel or aluminium finish	Black (RAL9005) if required

Visibility

Black furniture can provide better colour contrast for visually impaired pedestrians. Visibility bands are required on all street furniture with the exception of guardrails and seats.

Bands should be provided to contrast with the colour of the main body of the stand: signal grey or white reflective banding on black furniture; black banding on stainless steel (an exception to the standard colour palette).

Special finishes and coatings

Requests to use alternative colours to black, to match borough, town centre or historic palettes will be treated as exceptions and should be submitted for approval by the SDRG. Special coatings for flyposting and graffiti prone areas can be applied up to a height of 3,000mm on lighting columns.

Additional information

Legislation:
The Equality Act 2010

Department for Transport:
Inclusive mobility – A guide to best practice on access to pedestrian and transport infrastructure, 2002

Figure 212: A 'keep-left' hoop bollard illuminated by carriageway lighting

Figure 213: A 'keep-left' hoop bollard which is internally illuminated

11.5 Cycle parking

We are supporting the Mayor's Vision for Cycling, published in March 2013, by planning for growth in cycling and making safer and better streets for all. The provision of fit for purpose, well-located and secure formal cycle parking facilities is vital for supporting the cycling growth targets for London. A lack of appropriate parking is often cited as a barrier to cycling and cycle ownership.

The number and the quality of cycle parking spaces must not only keep pace with the growing use of cycles, but allow for the substantial future growth set out in the Mayor's vision. It must also allow for all types of cycle to be securely parked, ensuring that any cycle user with a physical, sensory or cognitive impairment should enjoy access to good quality cycle parking. Please refer to LCDS for further information.

Figure 214: A row of Sheffield cycle stands at Euston Circus

Location, demand and security

Cycle parking facilities on the TLRN are generally located on the footway within the furniture zone. London Cycling Design Standards (2014) should be referred to for further information on assessing demand for cycle parking and ensuring that provision:

- Meets current and likely future demand
- Supports different uses
- Is appropriately located
- Has step-free access
- Is secure, well-overlooked, and well-lit at night
- Is well integrated with the public realm
- Includes some provision for larger models, such as cargo cycles and tricycles

Placement

Cycle parking is best positioned where it is not visually or physically intrusive, yet is sufficiently overlooked for security purposes. The visual impact of cycle stands can be reduced if placed between other street furniture, such as tree planting, bus stops and seating, as part of a coordinated furniture zone. Cycle parking may also be useful in discouraging pedestrians from crossing at certain points.

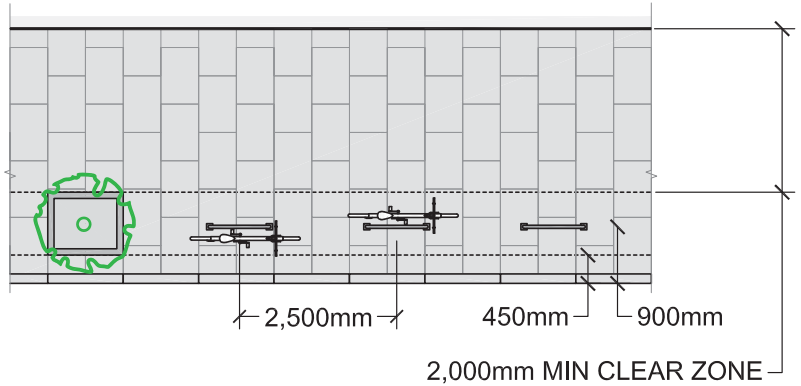
Echelon and perpendicular arrangements offer greater capacity than parallel layouts. In addition, echelon arrangements take up less width than perpendicular arrangements. Please be aware of the following when selecting locations for cycle parking:

- Cycle parking facilities may be provided on the carriageway alongside the kerb but require a traffic order
- Locations under overhanging deciduous trees may require additional maintenance
- A minimum clearance of 450mm between any part of the cycle and the carriageway should be retained when a cycle is parked on the stand
- Leaving a large gap (1,500mm or more) after the last stand in each run is a good way of ensuring that spaces for larger cycles are available
- Cycle parking placed on the median strip can help to reduce clutter on the footways, but should be carefully considered with regards to access, safety and pedestrian crossing visibility
- Tactile paving should not be provided around the base of cycle parking stands on the TLRN

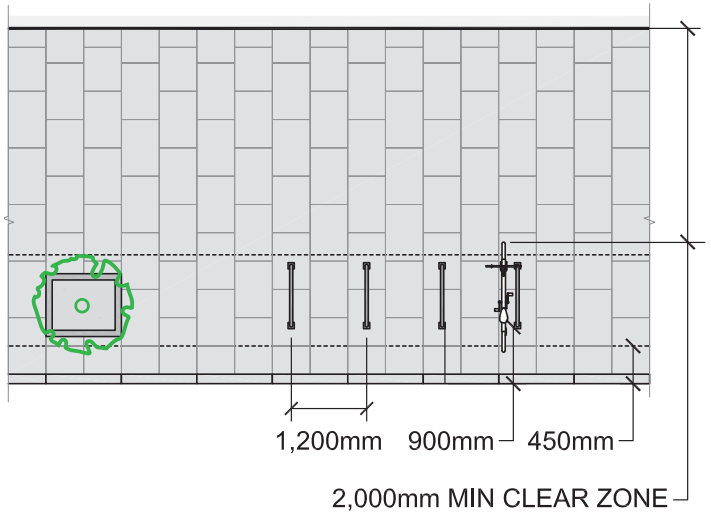
To consolidate furniture placement and facilitate integrated transport, cycle parking should be considered at stations, tram stops and bus stops, particularly outside central London.

Easy, step-free access to the facility should be provided through the use of dropped kerbs, crossings and sufficient space to manoeuvre. Dropped kerbs should be located as close to the cycle parking as possible.

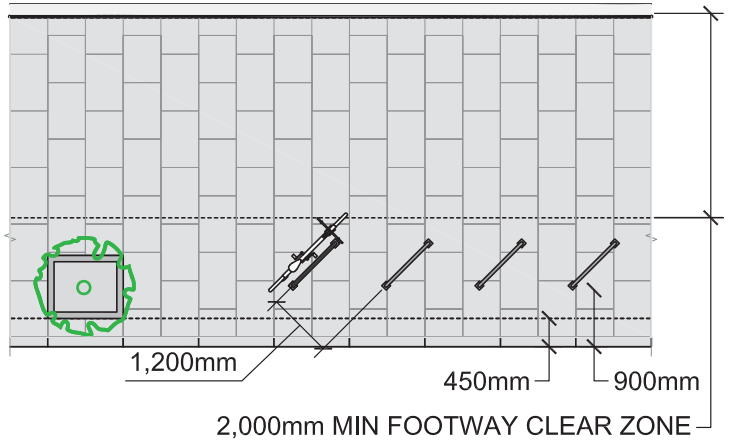
Figure 215: On-footway cycle parking arrangements are dictated by the amount of footway space



PLAN - CYCLE RACKS PARALLEL ARRANGEMENT



PLAN - CYCLE RACKS PERPENDICULAR ARRANGEMENT



PLAN - CYCLE RACKS ECHELON ARRANGEMENT

Figure 216: Sheffield cycle stand

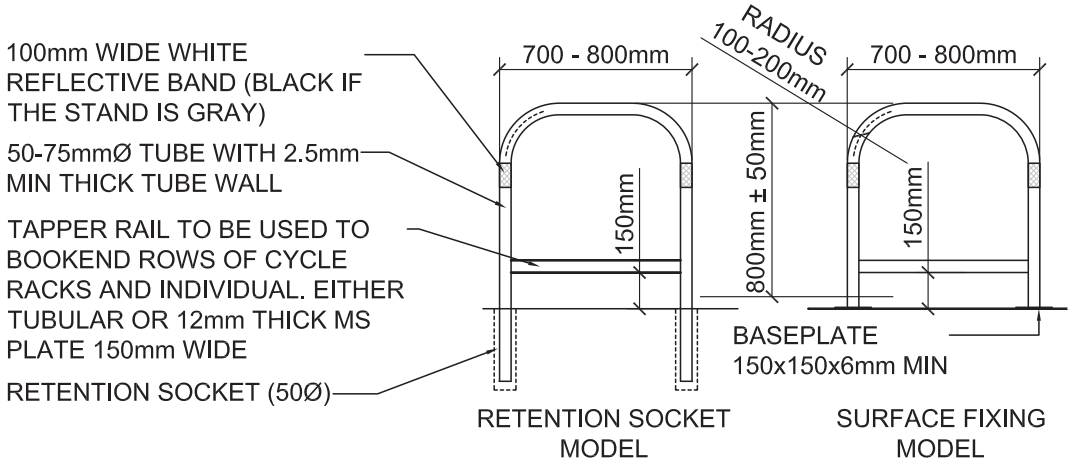


Figure 217: Cycle stands must have a contrasting visibility band

M-profile stands are also now accepted for use on the TLRN, but should not be considered the default option as they have a more intrusive presence within the public realm than the Sheffield style.

Product specification

Short-stay parking in the form of footway-mounted cycle parking stands is the standard facility for the TLRN.

The Sheffield (or inverted U) stand offers a simple, durable and cost effective tubular design, enabling the frame of the cycle and both wheels to be secured. These stands are the default option for the TLRN, assuming the following criteria are satisfied:

Cycle parking stand design criteria	
Distance between legs	700-800mm
Crossbeam height	700-800mm
Tube diameter	50mm
Tapping rail height above footway	100mm±25mm
Tapping rail width	Equal to the tube diameter of the stand up to a maximum of 75mm

Colour

The colour of the cycle stand should generally match the street furniture standards: black nylon-coated stands are standard on the TLRN, and stainless steel may be used following approval from the SDRG. However, there is some flexibility with regards to selecting cycle stands that are deemed appropriate for the context, such that stainless steel may be considered for areas adjacent to stations or new developments.

Visibility bands should contrast with the colour of the main body of the stand: signal grey reflective banding on black stands; black banding on stainless steel.

Accessibility features

A tapping rail should be provided on the end stands where stands are placed in a row perpendicular or 45 degrees to the kerb or building, but are to be omitted for intermediate stands. Stands placed parallel to a kerb or on a curve require a tapping rail.

- Parking symbols on the tapping rail are not required to reduce visual clutter
- Stands should be root fixed within the footway and surface materials carefully cut or drilled to provide a round hole that minimises the visibility of concrete infill
- At locations where vandalism is anticipated, demountable bolt-down fixings may be used

What if I want to do something different?

Tubular stands other than the Sheffield model, which fulfil the design criteria, may be considered for use on the TLRN but require SDRG approval.

TfL-branded cycle stands recently introduced at stations require SDRG approval for use on the TLRN.

Long-stay facilities such as lockers, cycle hubs or two-tiered racks should be provided at transport interchanges, but again require SDRG approval when considered for the TLRN. Covered structures require planning approval from the local authority.

Paperclip cycle rack Minneapolis, USA

Cycle racks that speak to urban contex

Key functions

Opportunity

Customised street furniture can enhance the character of a local area, emphasise a unique local history, or speak to the purpose of neighbouring businesses

Benefits

The innovative design of the cycle racks combine utility and style; alterations to basic cycle racks were made to improve their appearance while preserving their functionality.

Implementation

The customised cycle racks on the Minneapolis Art Institute's campus have added a surprising twist to a necessary element of the public realm

Applying in London

Customised designs can reinforce an element of the local context. For occasions where there is a particular need for bespoke cycle parking, such an approach can work well. At other locations, Sheffield stands are best.

ECO-Cycle system Tokyo, Japan

Automatic underground cycle parking system

Key functions

Opportunity

The ECO-Cycle system is a space-saving and secure solution for cycle storage in cities.

Benefits

By removing ground level storage and placing cycles underground, station entrances can become obstacle free and increase pedestrian capacity in and out of the entrances and exits.

Implementation

It takes 15 seconds to insert or retrieve a cycle from 11 metres underground. Each unit can hold up to 144 cycles, thereby freeing up space in the public realm. The underground garage protects cycles from theft and bad weather. Like all Japanese structures, it is designed to withstand earthquakes.

These subterranean cycle parks have been successful and have been rolled out across Tokyo and currently hold 800 of Tokyo's cycles.

The system owes its success to the speed and ease at which it operates. The units are also located in areas adjacent to metro stations for commuter convenience

Applying in London

High demand for cycle parking in London gives this system significant potential.

Additional information

Transport for London:

London Cycling Design Standards, 2014. Chapter 8: Cycle parking

Cycle Security Plan, 2010

Department for Transport:

Traffic Advisory Leaflet (TAL) 5/02: Key elements of cycle parking provision

Figure 218: A cycle hire docking station on Albert Embankment

11.6 Cycle hire docking stations

Vision and purpose

The Mayor's Cycle Hire Scheme is a public scheme for London, launched in July 2010 as a standalone mode. It was the first TfL mode to be sponsored and it provides more than 10,000 bicycles for hire from more than 730 docking stations and 20,000 docking points within a central London area of 100km2. The scheme was expanded to east London in March 2012 and launched in southwest London in December 2013.

The scheme has become a renowned part of London's streetscape since its inception in 2010, with its distinct look and stylised bicycles and docking stations. It is a self-service, bike-sharing scheme, designed as an affordable, alternative option to conventional public transport for short journeys.

We are keen to see that the network continues to serve our customers and will be looking for new opportunities for intensification of the existing network where appropriate. Where new docking stations are proposed, the design and layout of the station should be carefully considered to complement the overall composition of the streetscape.

Cycle hire scheme

The scheme comprises of physical on-street assets, namely bicycles which can be hired from, and returned to, docking stations placed around various locations within central and inner London. Each docking station comprises of at least one terminal that customers interact with for setting up access to hire. Each terminal is connected to docking points where the bicycles are physically docked for hire and return. Supporting the scheme are back office and on-street systems and operations.

As part of a Mayoral initiative to develop the customer offering for cycle hire, a TfL mobile application for Apple and Android users was released in May 2015. All the functionality of a terminal at a docking station has been replicated along with options linked to TfL journey planner. The real-time data feeds have been made available to commercial developers and a number of apps are now available which provide real-time information about docking stations locations, bike availability, free docking points and more.

The Mayor's Cycle Hire Scheme provides an effective way to add transport capacity to the network and helps relieve congestion for peak trips in central London. As an active, self-powered, emissions free and almost silent mode of transport, the scheme delivers important health benefits and contributes towards reducing CO_2, harmful local air pollutants and urban traffic noise.

The Mayor's Vision for Cycling commits to future enhancements of the scheme. It recognises the hire scheme as one of the world's most successful, playing an important role in normalising cycling in London by enabling customers to try cycling for a minimal outlay and encouraging them to adopt cycling as a lifestyle choice. This commitment is reflected in the cycle hire vision as stated below:

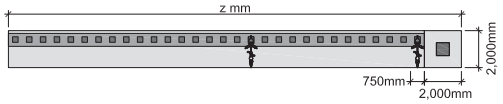
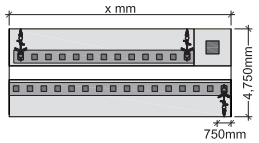
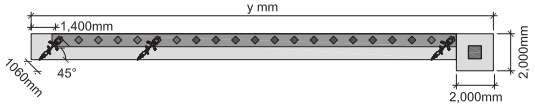
'To deliver a service fit for the future, enabling Cycle Hire to adapt and grow.'

Detailed layout considerations

The following is an indicative checklist of things to consider when identifying a potential docking station location. Please note consultation with, and agreement by ourselves and the local planning authority will be required prior to final station location.

Docking station layouts

There are three types of docking stations layouts, detailed below:

Layout name	Layout	Docking point formula	Example picture
Linear docking station		DPS= [length (x) 2,000mm]/750mm	
Double row		DPS= [length (y)-2,000mm]+[length (y)]/750mm]	
Echelon		DPS= [length (z)-2,000mm-1,400mm]/1,060mm	

Detailed layout considerations

Consideration	Detailed information
Space	A rough guide is 25 metres by 2,000mm as the minimum space required for a viable docking station of 27 docking points (see above indicative layouts).
Operational access	Redistribution vehicles must be able to legally stop within 15 metres of the station to maintain it and distribute bicycles. Line of sight must be maintained between station and vehicle. Loading and parking bays are the preferred location for stopping.
Footway width	A preferred minimum clear footway of 2,000mm in width must be maintained. Clearance of 450mm must be maintained from the carriageway.
Utility covers	Docking points or terminals cannot be installed over utility covers however bicycles can be docked over covers.
Drainage	Site footprint is required to have sufficient drainage to prevent ponding.
Vertical clearance	A vertical height clearance of 2,800mm is required for terminal and installation.
Existing vegetation	No loss of trees or grassed areas.
Existing street furniture	Minimal relocation of existing street furniture, including existing cycle stands.
Pedestrian/cycle/ vehicular flows	Sufficient space to maintain clear pedestrian/ cycle/vehicular paths.

Consideration	Detailed information
User safety	Safe and secure areas with good natural surveillance and street lighting.
Existing usage	Avoid areas of high pedestrian congestion and areas known to be unsuitable for cyclists.
Public access	Docking stations must be accessible to the public 24 hours a day, 365-days-a-year, ie they must be on public highway or land where the public have a right to unfettered access.
Terminal power	Terminal power is obtained from UK Power Networks (UKPN) via a feeder pillar located near the docking station. Typically feeder pillars are installed on the public highway and trenched to the terminal.
Foundations	The maximum foundation depth required for a docking station is 450mm and maximum width is 700mm.
Road safety audits	All sites will be subject to a full road safety audit.
Lease	A lease/agreement is required between TfL and the landowner, ideally at nil cost.
Connecting to existing cycle routes in the area	Sites should be located near existing cycle routes for users to continue their journey.

Infrastructure

Each docking station consists of at least one terminal and should have a minimum of 27 docking points, which can be provided in a number of layouts to fit the local circumstances. Based on our five years of experience operating Mayor's Cycle Hire Scheme in London, it has been found that 27 docking points is the best operational number at the majority of locations. Stations of this size require much less redistribution and have higher bike and space availability for users' convenience.

Please note there is a six-month lead time for all infrastructure to be manufactured and delivered.

Terminal

Each docking station has a payment and registration terminal which allows users to:

- Print a record of their journey
- Print cycle release code
- Find other docking stations if one is full or empty
- See a local street map, costs and code of conduct
- Buy 24-hour access for up to four cycles
- Get extra time if user needs to return their cycle to another docking station should the docking station be full

The terminal displays Legible London style mapping to assist wayfinding for cyclists and pedestrians. Legible London mapping is the only mapping used to ensure uniformity across the scheme and maintain ease of use.

Docking points

- Docking points release and secure bikes
- Members insert key to release bikes
- Non-members must retrieve a code and enter the digits into the keypad

Terminal

- Height: 2400mm
- Width of wide face: 500mm
- Width of slim face: 350mm

Figure 219: A cycle hire payment and registration terminal

Docking point

- Height: 792mm
- Width of bottom: 300mm
- Width of top: 225mm

Figure 220: Docking points without bikes

Foundations

There are three types of foundations as described below:

Standard

One foundation per docking point set into a concrete base. This is our preferred method of reinstatement as it is adaptable, allowing docking stations to be constructed on slopes or in a curved arrangement. In addition reinstatement around the docking points can aesthetically match existing, surrounding material. This foundation type requires 350mm depth and can be used on either the carriageway or footway.

Inset

Steel plate set into a concrete base, shallower dig required. Inset foundations can be used in circumstances where there are shallow utilities running underneath the docking station footprint. These are to be used on the footway only and require 150mm depth.

Surface mounted

No excavation required. Surface mounted foundations are used when there is significantly limited depth. However, the surface must be completely level and straight.

Figure 221: A cycle hire docking point in a concrete base and paved to match the carriageway

Figure 222: An inset cycle hire docking point on a steel plate

Figure 223: Surface mounted docking points

Procedures

There are various consents and approvals required as part of the delivery process. Such as:

Stage	Requirement
Pre-planning consent:	• Archaeological impact assessment (where relevant) • Arboricultural assessment (where relevant) • Ground radar survey • Topographical survey • Planning permission • Stage 1/2 Road Safety Audit • Planning permission from the relevant local planning authority
Prior to construction:	• Traffic Regulation Order (for carriageway sites) • Permit for construction works • Parking suspension (where relevant) • UKPN install feeder pillar for electricity supply • Watching briefs arranged (where relevant) • S8 agreement/private lease completed • Area reinstated around foundations • Install appropriate TSRGD traffic signs and line marking
Prior to installation:	• Permit for works • Parking suspension (where relevant) • Mapping updated on local docking stations
Post-installation:	• CAT/LAT test completed • Health and safety documentation completed • Stage 3 Road Safety Audit is required as soon as possible once live, wherever possible within three months of becoming operational. Please refer to TfL SQA-0170

Additional information

Transport Trading Limited:

London Cycle Hire Scheme Agreement, 2009:

Schedule 2 – On-Street Infrastructure Statement of Requirements Lot 1

Schedule 37 – Docking Station Implementation and Traffic Management

11.7 Seat

Functionality, comfort and accessibility are key requirements of seating, but equally it provides the opportunity to delight users through creative designs and thoughtful placement. The material choice, composition and form offer a multitude of opportunities to select or design a seat that improves the user experience.

We are eager to raise the ambition of seating choice and placement within the streetscape. Functionality is no longer considered the only criteria to satisfy.

Seating can perform many functions within the streetscape besides providing a place for people to rest. Designers should consider how seating can: reflect the character of the space; create a sense of whimsy; provide social cues about the purpose of the space; reinforce the design intent; or encourage socialisation. Whatever the intention, seating provides one of the most effective ways to enhance or reflect the character of an area and add to the vibrancy of the space.

Figure 224: Seating at Holborn Circus with arm and back-rests

Placement considerations

Formal seating should be provided according to the following criteria:

- Adjacent to or visible from a pedestrian route
- Where pedestrian flows will not be impaired
- Where provided near walls, the seatbacks should be against a wall to reduce the likelihood of damage from skateboards
- In an open aspect that enables approaching pedestrians to be seen
- In areas of natural surveillance to minimise antisocial behaviour
- So as to avoid impeding access to buildings
- In public spaces that are attractive and in sunlit areas where possible, as these areas are more likely to be used
- Away from wind tunnels, for example between tall buildings, which could make use uncomfortable
- Where possible a continuous run of seats should be provided where high use is anticipated. However, seating should not be placed directly opposite to one another.

Seat placement standards	
Recommended set back from kerb for inward facing seat	1,000mm
Recommended set back from kerb for outward facing seat	2,000mm
Maximum recommended spacing interval for seating on high streets, city places and steep inclines	50 metres

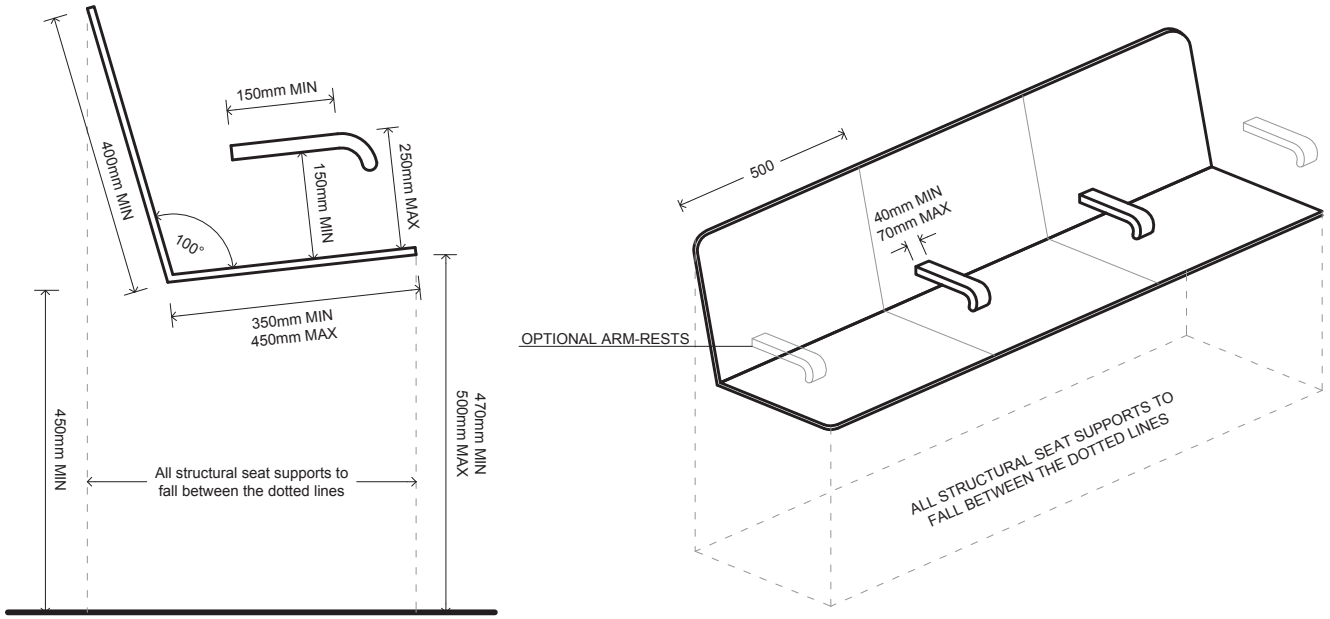
Product design standards

Seating should be selected which combines comfort, ease of maintenance, durability and resistance to vandalism.

Figure 225: A bench with arm and back-rests offers a range of options for users

The following design criteria should be used to assist in selecting an appropriate product:

Figure 226: Minimum bench requirements



Seat material standards	
Timber	Preferred material for where people may wish to sit for longer periods To be compliant with GLA's responsible procurement policy and accredited to Forest Stewardship Council (FSC) standards or equivalent Is preferred where the seat will be well maintained and vandalism is rare
Stainless steel	May be considered for areas where vandalism is anticipated Concealed ground fixings should be used
Natural stone	Non-standard. May be used as an alternative to security bollards, large natural stone blocks may be used upon approval by the SDRG

Authorisation

Seats may be provided by the local authority or adjacent landowner subject to the approval of the highway authority.

Wharf Green, Swindon, UK

Seats may be provided by the local authority or adjacent landowner subject to the approval of the highway authority. High quality Streetscape Guidance compliant bench planter

Key functions

Opportunity

This project took place in Wharf Green, central Swindon. Traditionally a commercial area, this was a catalyst project aimed at regenerating the local area and reinforcing a sense of place.

Benefits

Wharf Green has subsequently transformed into a popular space that hosts regular events.

Implementation

This seating planter was built from durable hardwood with stainless steel corner edge detailing and feature lighting. It was designed as an innovative piece of street furniture to enhance the newly created events space.

Image courtesy of Woodscape Ltd

Applying in London

Beautifully detailed and durable street furniture should be encouraged everywhere in London.

The High Line, New York, USA

A family of benches as a unifying element

Key functions

Opportunity

New York's High Line is a world-famous redevelopment of a disused heavy rail viaduct into a public park, with high quality materials throughout.

Benefits

The 'peel-up' bench is an integral repeating element in High Line Park. These benches create a 'family' of design elements which are used not just for seating but as play elements and picnic areas.

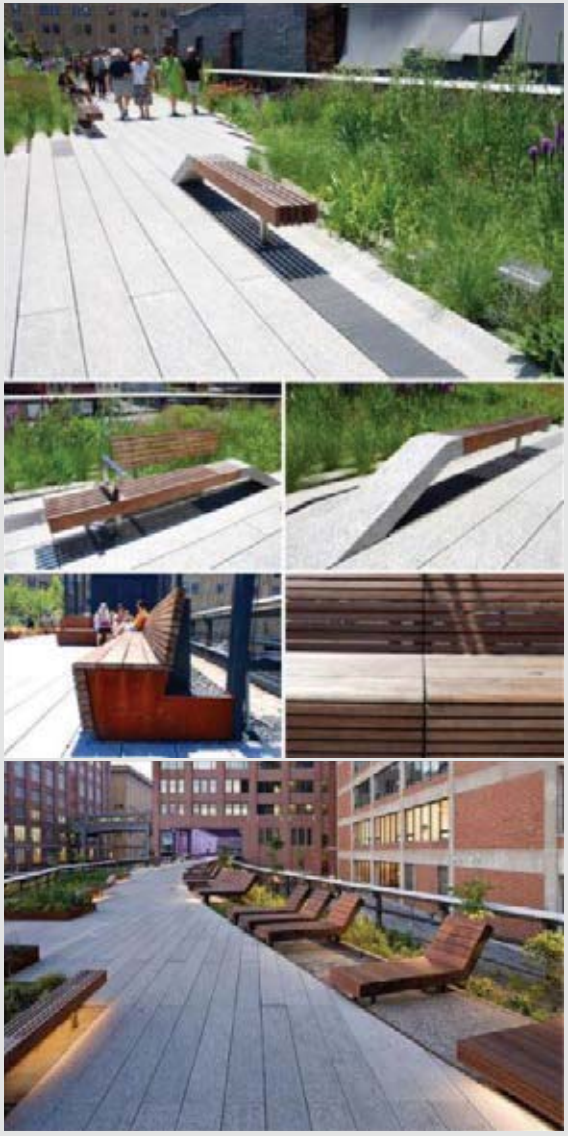
The family of benches acts as a unifying element that ties disparate spaces together and reflects the historic use of the High Line.

Implementation

A family of benches have been created through the use of a similar form and a consistent palette of materials, ie wood, stainless steel and natural stone.

Applying in London

Street furniture families should be used in London to enhance local character and to connect disparate spaces. The proposal for a family of benches should be reflective of the local character and identity.



Images courtesy of Aleksandra Grabowska

Additional information

Department for Transport:

Inclusive mobility – A guide to best practice on access to pedestrian and transport infrastructure, 2002

Greater London Authority:

The GLA Group Responsible Procurement Policy, 2008

11.8 Art

The use of public art on the TLRN may be considered for an area where a special or decorative design feature or landmark will help to define a particular place and enhance people's daily experiences. We will prioritise designs in which the promoter can demonstrate that the installation will make a positive impact on the quality and distinctiveness of the local setting.

Design considerations

Public art is often designed to provide a landmark which people can identify and use to navigate. Artwork may therefore be appropriate in areas which lack other recognisable features.

Public art should not be limited to single objects or expensive finishes. The best design response is often the most simple: a repeated single element across a wider area, or a well-conceived adjustment to the 'standard'.

Public art should be delivered in accordance with the Equality Act 2010 and should not pose a health and safety risk, restrict sightlines or pose a trip hazard.

Temporary art installations may be considered for certain situations, such as during the construction of wider street improvement works, or as part of a temporary wayfinding strategy and, in exceptional circumstances, to promote major events.

The maintenance and management of public art must always be taken into account as part of the design process.

All art installations (temporary or permanent) should be detectable at ground level by a symbol or a long cane. Any projections from art installations should not present a collision hazard to those using the footway.

Designers should aim to support local artistic talent. In some cases, it may be appropriate to involve the local community in judging a design

Figure 227: Playful artwork

Figure 228: A sculptured granite bench in Windrush Square

competition through the local authority's arts coordinator.

Public art does not necessarily need to be expensive or complex. A simple transformation of everyday objects can be just as effective.

Location

Design teams should ensure that the placement of the artwork complies with our Streetscape Guidance general location principles and that any structure does not overly impinge on footway space and impede pedestrian movement.

Public art may be considered across a wide range of settings including, but not restricted to: public areas where people gather, such as transport interchanges or public squares; highly visible traffic corridors and routes, for example on roundabouts; and distinct urban structures, such as bridges or subways.

Delivery

Planning consent may be required from the local planning authority. Design teams wishing to commission art for the TLRN should liaise with one or more of the following contacts:

The relevant local authority's arts coordinator.

Our Art on the Underground team – for projects relating to London Underground station forecourts.

Art in the Open – support organisation for additional public realm art commissioning guidance.

When working on the TLRN, design teams or external promoters of public art should forward their recommendations to the SDRG.

Figure 229: Winning sculpture: Goat atop packing crates in Spitalfields

Maintenance

Any proposed intervention should not require significant changes to the existing maintenance regime. The standard of maintenance depends on many factors including the location, condition and function of the area or feature.

Additional information

Greater London Authority:

All London Green Grid SPG, 2012

The London Plan, 2011

11.9 Bins

The regular and convenient provision of bins on footways provide an important contribution towards supporting a litter free environment, but can also impact on the general appearance and quality of the streetscape.

Limited provision of bins in litter hotspots, where people congregate or near tourist attractions, can help to manage the problem of litter, assuming bins have sufficient capacity and are regularly serviced.

Figure 230: Bins which combine functionality to separate several types of waste are encouraged

We acknowledge the distinct character of different areas on the road network and so a single style of bin cannot be used across all environments. Streetscape Guidance recommends a restricted range of styles which relate to the surrounding context and the anticipated level of use, while ensuring that efficient cleansing regime standards are maintainable.

There are three types of bins that typically occur on the road network: the litter bin, recycling bins and trade refuse bins. This section details the types of bins, their placement, appearance and coordination with the local authority who generally provides and maintains them.

Figure 231: Cigarette bins may be located on poles if approved by SDRG

Litter bins

Litter bins should have a simple aesthetic which is robust and functional. Conservation and special areas require heritage bin designs which better reflect the character of the area and should be finished in black.

Bins should be freestanding, however, wall-mounted bins may be considered in exceptional circumstances where there are footway constraints. Bins should be bolted down to discourage antisocial behaviour. The use of integrated cigarette disposal units may be considered.

The capacity of the bin needs to take account of the intensity of use to avoid contents spilling on to the surrounding footways.

Litter bins on the TLRN should be covered and have open-sided access, sufficiently wide for convenient disposal of litter. Bins should not have an open top, as they allow rainwater to collect and litter can blow away when full. Fully closing lid designs should also not be used as these can discourage use by being less sanitary and have additional maintenance issues.

Location

Bins should be placed according to the following standards:

- Litter bins should be placed a minimum of 450mm from the kerb edge
- Bins should be positioned so as not to cause an obstruction on the footway
- Access to adjacent properties should not be constrained
- Visibility should not be obstructed
- Maintenance and access requirements should be considered

Ensure footway width is not reduced below 2,000mm.

Bin placement should be coordinated with other street furniture, such that bins may be positioned adjacent to seating. Bus Infrastructure should be consulted regarding any proposal for bins near to bus stops.

Bins may be attached but not mounted on to lamp columns as they are prone to leaking and can pose a hazard for white cane users who cannot detect them.

Materials

The colour and finish should be consistent with other street furniture on the TLRN; black as standard.

- Cast iron or plastic bins are the preference on the TLRN
- Stainless steel should be treated as an exception to the palette. Designers should note that stainless steel bins with solid sides can stain and deteriorate quickly and are prone to flyposting

- Timber may be used in exceptional circumstances, adjacent to parklands or in rural areas, but requires SDRG approval
- Plaques and ornate labelling are acceptable where approved by the borough
- Where graffiti and flyposting are a problem, a chemical-resistant low adhesion anti-graffiti finish should be applied to the surface of the unit
- Litter bins on the TLRN which provide advertising space require SDRG approval

Planning

The placement of litter bins needs to be carefully considered, so that any provision is aligned to demand where there is a proven issue of littering. This is especially relevant to surrounding land use; for example, shops such as takeaway restaurants will likely require additional litter bin facilities.

Local authorities have borough specific policies regarding the provision of bins and the standards that are acceptable within the borough. Bins on the TLRN should be provided which align with both the borough standard and Streetscape Guidance. Design teams need to liaise with the relevant local authority to ensure that the design of the bin allows the local authority to carry out standard cleansing regimes.

Security

In high security areas, the use of blast-resistant litter bins with concealed ground fixings will be required. Advice should be sought from our transport community safety managers within the Enforcement and On-Street Operations team.

Trials

Where routine monitoring of the TLRN identifies a lower level of cleansing standards than normal, the introduction of litter bins may be considered as part of a trial.

During the trial period the condition of each bin and the remaining capacity should be noted regularly to establish how the bin is being used and whether permanent provision would make a long-term contribution towards enhancing the quality of the streetscape.

Additional information

British Standards:
Publicly Available Specifications (PAS) 68 and 69, 2005

Figure 232: A combined rubbish and recycling bin uses bold colour to emphasise proper use

Image courtesy of Lambeth Council

Recycling bins

Recycling bins are provided to encourage Londoners to recycle waste. Recycling bins can be combined with litter bins. However, when recycling bins are not combined, the design of the bins should be similar yet distinctive enough to differentiate its purpose from other litter bins.

Recycling bins do not offer disposal facilities for commercial or retail establishments. The provision and management of recycling bins is the responsibility of the local authority, and governed by local policy. The demand for recycling bins is likely to increase in line with sustainability policies, the United Nations' Agenda 21 and growing public awareness.

Location

Recycling bins should be located to provide convenient, safe access for residents, as well as adequate space for collection and emptying. Representatives from the local authority and TfL must agree a suitable location.

Recycling bins should not be installed where the footway width would be reduced to less than 2000mm. Bins should conform to Streetscape Guidance's furniture zones and not be placed in special areas or where they detract from listed buildings or heritage features.

Care is required to ensure that traffic flows are not impeded by collection vehicles. Access to adjoining properties should be maintained.

Where collection vehicles are anticipated on the footway, the structural strength of the surface materials must be reinforced to avoid damage.

Best practice

The functional design of each bin is generally related to the type of material being recycled.

Recycling bins should be robust, fire-resistant and contain explanatory graphics where required. Bins should be leak-proof to avoid the staining of surface materials. Recycling bins should be secure to deter antisocial behaviour.

Smart recycling bin London, UK

Recycling bins with liquid crystal display (LCD) screens for information, advertising and data collection

Key functions

Opportunity

Recycling bins are an essential item of street furniture; however, they are inherently large and can be obstructive. The smart bin uses its bulk to provide useful information via a large screen.

Benefits

This design was an attempt to get more out of the infrastructure of street furniture. The recycling bin also doubles up as a public billboard displaying everything from the weather and news to transport information, adverts and stock prices.

Implementation

A trial of eight bins have been placed in the City of London.

Image courtesy of Control Group

Applying in London

Street furniture that provides enhanced functionality to customers is encouraged.

Trade refuse containers

Trade refuse containers are high capacity bins which ensure the safe storage of large quantities of waste from commercial properties. They are required by a wide range of commercial properties and so should be carefully arranged and managed to minimise their visual impact. Bins should preferably be located away from the TLRN, in servicing alleys and back streets.

The provision and management of trade refuse bins is the responsibility of the local authority and/or private contractors.

Location

Where unavoidable and upon agreement with ourselves, trade refuse bins may be located on the TLRN, assuming safe access can be ensured. They should be positioned where parking for collection and delivery vehicles can be provided and traffic flows are not impeded. The following criteria must be met:

Figure 233: Trade refuse bins can be detrimental to the character of the streetscape and should be kept out of sight where possible

(Image courtesy of STE Waste)

- They should only be placed on footways if the footway clear zone is to remain 2000mm or more
- Visibility sightlines must be maintained
- Metal refuse corrals may be used where a number of moveable bins are located together and need to be aligned and contained for safety and aesthetic reasons
- Bins should be located where access to adjacent properties will not be hindered
- Where collection vehicles are anticipated on the footway, the structural strength of the surface materials must be reinforced to avoid damage

Product specifications:

Trade refuse bins should be robust and fire-resistant, and contain explanatory graphics where required. Integrated discreet graphics are preferred to stick-on labels which tend to peel off.

Bins should have wheels to manoeuvre to collection vehicles and incorporate a facility to allow them to be lifted using modern lifting equipment. Bins should be of a uniform style and colour where possible and coordinated with other street furniture.

Consideration should be given to the use of higher quality bins or screening when located in or near special or historic areas.

In high security areas, the use of lockable or sealed bins will be required. Advice should be sought from our transport community safety managers within the Enforcement and On-Street Operations team.

Implementation and maintenance

A licence from the local authority may be required before installation. Installation is the responsibility of the local authority or a private contractor. Regular collection and maintenance is required to ensure that overflow waste does not pile up next to the refuse container.

Subterranean bins London, UK

Large underground containers to store household waste

Key functions

Opportunity

This system is designed to meet the waste disposal needs of a highly populated city in an efficient manner.

Benefits

By placing a street's rubbish in a large bin, refuse agencies need to make far fewer trips. Sensors in the bin alert the waste company when the bin is getting full. Rubbish collectors can plan the most efficient way of collecting; minimising the use of dustcarts, noise pollution and traffic build-up from the process. Placing the bins underground removes them from the streetscape where they are an eyesore and take up room in the public realm.

Image courtesy of Justine Ancheta

Implementation

The containers take up minimal space on the surface level and store waste in a large container below ground. The system uses WiFi and radio frequencies to transmit information on the waste levels from the sensor.

Applying in London

These are already being used in the London Borough of Lambeth.

11.10 Letter and pouch boxes

Letter boxes

Post letter boxes are a distinct and recognisable feature within the streetscape which perform a daily operational use as well as being an iconic piece of street furniture.

There are several forms of letter box including the pillar box, wall box and small lamp-post boxes.

Pouch boxes

Pouch boxes are used to store mail for onward delivery and are not accessible to the general public. The standard pole mounted design is functional but unsightly and creates significant additional street clutter.

There is a national rolling refurbishment programme removing linked post pouches.

When streetscape improvement projects are being undertaken, the Royal Mail should be contacted with a view to removing any linked post pouches within the scheme.

Design

- Typically 400mm deep and 450mm wide, pouch boxes are usually pole mounted
- Wall-mounted letter boxes reduce street clutter and are the preference where practicable

- Pillar boxes have greatest capacity and have preference over multiple smaller lamp boxes
- All Royal Mail boxes will be painted in standard red and black livery

Location

- Letter boxes should not be installed where the footway clear zone will be less than 2,000mm wide
- They should preferably be placed within the furniture zone and should not obstruct sightlines to crossing facilities
- Post boxes should be placed on a hard surface to allow for easy emptying

Responsibility

Post and pouch boxes are the responsibility of the Royal Mail.

Authorisation

Royal Mail has a statutory right to place and retain letter boxes in the street under paragraph 1, Schedule 6 of the Postal Services Act 2000. Ownership remains with Royal Mail. Although consent is not required, Royal Mail will liaise with the highway authority to obtain agreement for the location and placement.

Planning consent is not normally required for a post box or self-service stamp machine. Listed building consent is required where there are proposals to alter or remove a listed post box, or those set in or adjacent to a listed building. Refer to Planning (Listed Buildings and Conservation Areas) Act 1990.

Additional information

Legislation:

Postal Services Act 2000 c.26, Schedule 6 – Power to place post-boxes etc in streets, section 1. http://www.legislation.gov.uk/ukpga/2000/26/schedule/6/paragraph/1

English Heritage:

Royal Mail Letter Boxes: A Joint Policy Statement by Royal Mail and English Heritage, October 2002.

Figure 234: Post boxes should be located in the furniture zone

11.11 Telephone boxes

Telephone boxes are a common and recognisable feature across the London streetscape, with several distinct modern and traditional styles in operation.

Relocation or removal

Where more telephone boxes exist than deemed necessary, or where a unit or units adversely impact on the quality and functionality of the streetscape, the highway authority should work with the operator to reach an agreement to relocate or remove the structure, while retaining adequate service coverage.

The highway authority may remove a telephone box when it has been disconnected from the network. This means that the operator is

Figure 235: A historical telephone box in Westminster

no longer satisfying the requirements of the electronic communication code and the unit can be construed as an obstruction.

Application for new boxes

The impact of any new telephone box on the coherence and quality of the streetscape should be considered. Locations need to be assessed on their own merits, with due consideration for available footway widths, the impact on pedestrian and cycle desire and sightlines, existing footway demand from surrounding activities and buildings, availability of ATMs, and an analysis of local antisocial behavioural issues.

Telecommunication companies should provide details on location and placement so that we can make a robust and informed decision on the application. Under the Highways Act 1980, any shopfront affected by the unit should be consulted and their views taken into consideration.

Location

- Telephone boxes should not be installed where the footway clear zone is less than 2,000mm wide
- They should not be installed if doing so would create an obstruction which could pose a safety hazard ie at the front of a kerb in close proximity to a junction or side road
- They should be located away from loading bays, service access points and crossovers The doors should not open into the path of pedestrians
- The box should be no less than 450mm from the kerb face
- Boxes should be positioned to ensure that there is sufficient space to allow mechanised cleaning

Products

Telecommunication operators may use their own telephone box style and branding where deemed appropriate, but should be encouraged by the highway authority to coordinate the colour and placement of the box with other street furniture in the local area. The most common units in operation include:

K2 and K6

Traditional red telephone boxes are retained in many central and conservation areas of London. A large proportion of these are heritage-listed structures. They are no longer in production but can be moved to locations to replace other models as they are preferred by TfL to the KX or ST6 series in central areas.

Figure 236: A traditional telephone box, many of which are heritage-listed

KX series

The KX series was rolled out across London in the 1980s and 1990s. A small proportion of these have listed status. They allow for advertisements and are designed to be easier to maintain and better protect against vandalism than older structures. Multiple units may be considered for replacement with an ST6 in specific approved locations.

Figure 237: An example of a KX series telephone box

ST6

New open-sided units, such as the ST6, are now in use and include a 1.36-metre wide illuminated advert on one side. ST6 units should be fitted so that the advertisement faces the flow of traffic. The width of the unit can significantly impinge on footway space and so should not be fitted on streets where footway unobstructed widths would be reduced to below 2,000mm. A footway width of minimum 4,200mm is required but designers should also consider pedestrian flows to determine appropriate placement. They are not appropriate for conservation areas and require planning consent for illuminated advertisements.

Figure 238: An example of an ST6 telephone box

Advertisements

Class 16 of Schedule 3 of the Town and Country Planning (Control of Advertisements) (England) Regulations 2007 [as amended by the Town and Country Planning (Control of Advertisements) (England) (Amendment) Regulations 2011] gives deemed advertisement consent for an advertisement displayed on the glazed surface of a call box, other than a kiosk of type K2 or K6.

The following types of display of advertisements did not receive deemed consent:

- Illuminated advertisements
- Advertisements in conservation areas or where special advertisement controls are enforced
- Advertisements placed on more than one face of a single telephone box (other than the operator branding)
- Where three units or more are located next to each other, advertisements can only be provided on a maximum of two faces

Responsibility

Telephone boxes are the responsibility of the telecommunication operators. Service providers have a duty to provide an appropriate number of working phone boxes where most needed, under the Universal Service Obligation (USO). The Electronic Communications Code (Schedule 2 of the Telecommunications Act 1984) gives operator companies the power to install and retain electronic communications equipment on the public highway. They should be adequately maintained by the operator to ensure good working order and cleanliness.

Authorisation

Telecommunication operators have to seek approval from the relevant local planning authority to determine whether prior approval is required for the siting and appearance of a new unit.

Telecommunication operators with a licence under Section 7 of the Telecommunications Act 1984 may install public call boxes on the public highway.

The Highways Act 1980 provides that the local highway authority has to give consent for objects on the highway.

Listed building consent is required where there are proposals to alter or remove a listed telephone box, or those set in or adjacent to a listed building. Refer to Planning (Listed Buildings and Conservation Areas) Act 1990.

LinkNYC internet pylons New York City, USA

Replacement of payphones with internet pylons

Key functions

Opportunity

With an ever increasing use of smartphones and reliance on the internet, free public WiFi is an increasing priority in New York.

Benefits

The LinkNYC programme aims to replace old payphones with a free public WiFi infrastructure, available across New York. The kiosks will also have a touchscreen interface where members of the public can research locations and public amenities and it will provide capacity for advertisements.

Implementation

As LinkNYC is scheduled to be built during 2015 the results of its success are not yet determined.

Image courtesy of Control Group

Applying in London

These internet pylons would be appropriate for areas in London which are popular tourist destinations and in busy office and retail areas.

11.12 Pedestrian wayfinding

Vision and purpose

Walking is a great way of getting around London; it is free, healthy, environmentally friendly, and often the quickest option. Yet many people are put off by inconsistent signage and confusion about distances between areas.

We have developed 'Legible London' to tackle these issues and help residents and visitors walk to their destination quickly and easily. This award-winning map-based system is integrated with other transport modes so when people leave the Underground, for example, they can quickly identify the route to their destination.

Location

Design teams should provide wayfinding guidance to aid navigation and encourage people to walk rather than seek out public transport, while aiming to minimise the total number of pedestrian signs used to reduce additional street clutter.

Signs should be located where users start their journey as a pedestrian, at key decision points and landmark destinations.

Signage should be located to minimise physical intrusion within the streetscape, but should be sufficiently visible so as to serve its intended purpose.

Figure 239: Pedestrian wayfinding systems such as Legible London offer a consistent and recognisable system of maps across our city

Where pedestrian routes cross the TLRN and are signposted using local authority signs, the signage strategy may be continued on the TLRN subject to compliance with TSRGD.

Wayfinding signs do not need to be illuminated by internal or external lighting, or retroreflective materials.

Legible London

Since its introduction in 2007, the Legible London signage system has become the TLRN standard for pedestrian directional signage.

The system provides a consistent and connected approach to the design and layout of pedestrian wayfinding across London.

Scheme designers should follow a systematic approach to locating Legible London signs in the urban realm by drafting a placement strategy based on the Legible London Design Standards (2010).

Figure 240: Legible London temporary foundation cover plate

A range of approved signage products are available including free-standing map-based totems and fingerposts. Selecting an appropriate product from the family of wayfinding signs available will depend on the scheme objectives and footway space available.

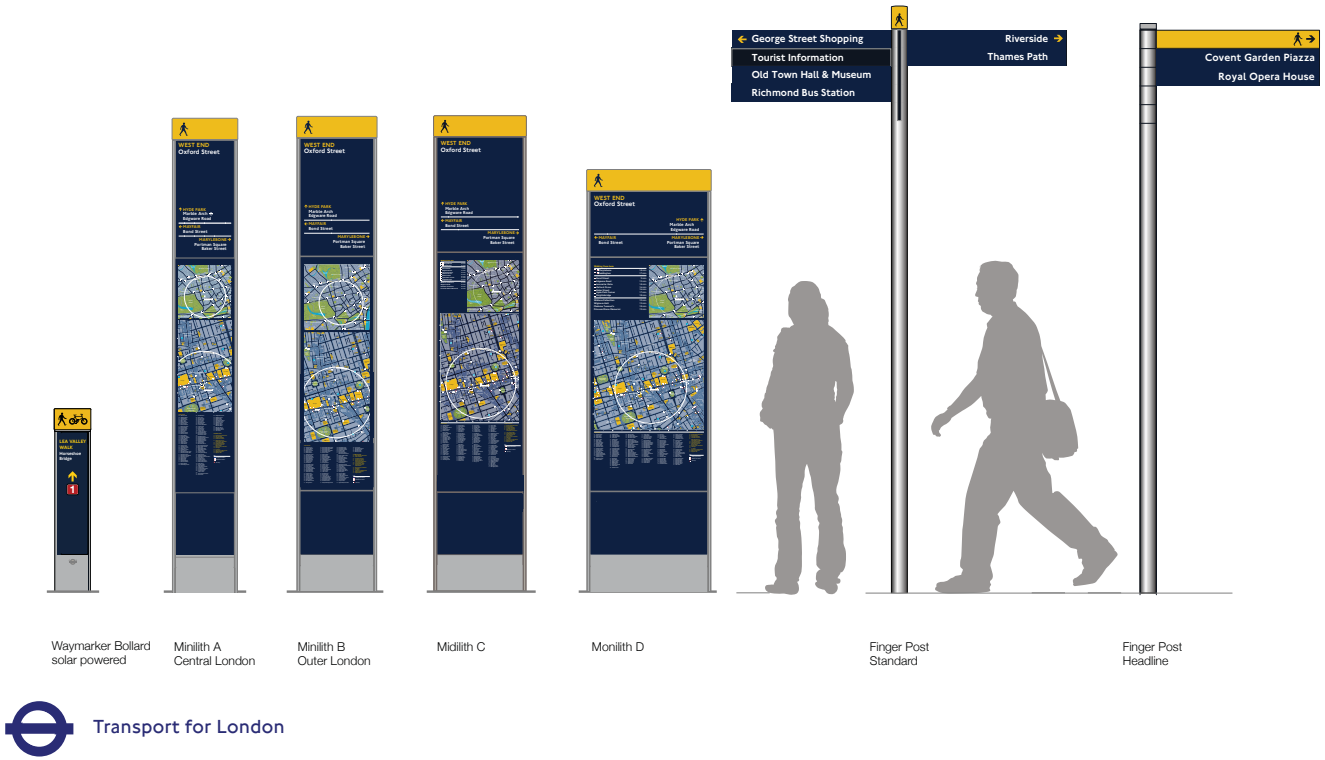
On-street 'liths' include finder maps (a five-minute walk) and planner maps (a 15-minute walk) taken from the Legible London basemap, complete with 3D buildings, walking circle, 'you are here' marker and off-map tabs along with a panel for directional information.

'Liths' should typically be located within the furniture zone, with the map face oriented down the street. Placement should be a minimum 450mm from the kerb edge, and increased to 800mm on flush surfaces or where road speeds are 40mph or greater. Designers should avoid locating signage where vehicle overrun is likely, such as near inset loading bays or on tight street corners.

Sufficient space should be provided on both sides of the sign for pedestrians to view the 'lith' from either side. 'Liths' should not be placed facing a wall, and this placement will only be approved in exceptional circumstances.

A temporary on-street cover should be provided once the placement has been agreed and the foundation has been installed. Heads-up mapping artwork can then be produced from this location and the sign installed once manufactured.

Figure 241: Legible London's wayfinding 'liths'/map-based totems product range



Fingerposts

Fingerpost signs may be used in particularly complex urban environments at junctions, or as a simple route confirmation sign. However, map-based Legible London products are to be prioritised over fingerposts. Fingerslats can be installed on existing lamp columns where possible, or at low level on pedestrian guardrails.

Designers should ensure that the sign allows for a minimum clearance of 450mm away from the kerb edge for any part of the sign, including the fingers. This can mean that the pole for the sign needs to be mounted more than 1,000mm from the kerb edge, which will not be appropriate in many situations.

Figure 242: Legible London's finger post

The use of fingerposts is limited to areas with a sufficiently wide footway such that the post does not impede the footway clear zone or the sign overhang the carriageway.

Blue TSRGD approved fingerposts exist on parts of the TLRN and should be maintained until replacement is required. When replacement is required, Legible London branded signage should be used to maintain consistency across the TLRN, unless it forms part of a wider borough route signage strategy.

Information signage:

- Any third party information signage proposed for the TLRN which does not follow the Legible London template, requires Legible London programme team consent
- Non-standard products may be considered in exceptional locations for heritage areas, landmark sites, or to fit with adjoining signage strategies
- All information boards must be in accordance with TSRGD, Schedule 4

Authorisation

Only TfL has the authority to erect pedestrian signs on the TLRN. Permission should be sought from the property owner for erecting signs on to building frontages.

The safe operation of wayfinding signs should be assessed via the Road Safety Audit process to ensure the installation does not hinder visibility and sightlines.

Additional information

Legislation:

Traffic Signs Regulations and General Directions (TSRGD)

Transport for London:

Legible London Design Standards, 2010

Legible London: https://tfl.gov.uk/info-for/boroughs/legible-london